



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,695	06/25/2003	Su-Hyeon Roh	1572.1151	8439

21171 7590 03/09/2005

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

EDWARDS, ANTHONY Q

ART UNIT PAPER NUMBER

2835

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,695

Applicant(s)

ROH, SU-HYEON

Examiner

Anthony Q. Edwards

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/03/9/04 & 1/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated U.S. Patent No. 6,487,081 to Homer et al. ("Homer" hereinafter). Referring to claim 8, Homer discloses a hard disk drive adapter (300) for a computer having a hard disk drive (HDD) mounting receptacle (400) to detachably accommodate a first hard disk drive (200), the hard disk drive adapter (300) comprising a supporting frame (310) into which a second hard disk drive (not shown) smaller than the first hard disk drive is placed, hooks (394) provided in respective corners of the supporting frame (310) that hold onto the second hard disk drive when the hard disk drive adapter (300) is turned over for insertion into the mounting receptacle (400), and extension parts (312/320) extending outward from the respective corners of the supporting frame to fit the hard disk drive adapter into the mounting receptacle. See Fig. 1 and col. 4, lines 16-24.

Referring to claim 9, Homer discloses a hard disk drive adapter, wherein the mounting receptacle (400) is "adapted" to the first hard disk drive (see col. 6, lines 2-4, which teaches providing hubs (370) directly on the HDD for mounting said drive directly into the receptacle without the use of an adaptor). Homer also teaches the hard disk drive adapter (300) "adapted"

Art Unit: 2835

to the second HDD, since "adapting" the same to an adapter (300) is clearly taught in col. 4, lines 16-24.

Referring to claim 10, Homer discloses a hard disk drive adapter, wherein the supporting frame (310) has a rectangular shape and further comprises a bottom part (350) onto which the second hard disk drive is mounted, a widthwise sidewall (312) extending upward from one side of the bottom pad (350), and lengthwise sidewalls (314) extending upward from each side of the bottom pad adjacent to the widthwise sidewall. See Fig. 1 and the corresponding specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Homer. Referring to claim 1, Homer discloses a computer, comprising a computer body (100) having a mounting receptacle (400) in which a first hard disk drive (200) is detachably accommodated, and a hard disk drive adapter (300) detachably accommodating a second hard disk drive (not shown) smaller than the first hard disk drive, and the mounting receptacle (400) receiving the hard disk drive adapter (300) when the second hard disk drive is to be installed in the computer. See col. 4, lines 16-24. Homer does not specifically teach the mounting receptacle (400) receiving the hard disk drive adapter (300) instead of the first hard disk drive when the second hard disk drive is to be installed in the computer. Homer does teach, however, providing a HDD

Art Unit: 2835

with hubs (370) on the HDD itself (see col. 6, lines 2-4) for mounting said HDD directly into the receptacle without the use of an adaptor.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the computer of Homer such that the mounting receptacle receives the hard disk drive adapter instead of a first HDD when a second HDD is to be installed in the computer, as taught in the different embodiment of Homer, which provides a HDD having hubs thereon to be received in the mounting receptacle without a disk drive adaptor, since the different embodiment of Homer would provide more flexibility of the computer by allowing for both hard disk drives having built-in mounting hubs, as well as disk drives without built-in hubs.

Referring to claim 2, Homer as modified, discloses a computer, wherein the hard disk drive adapter (300) comprises a supporting frame (310) into which the second hard disk drive is placed, hooks (394) provided in respective corners of the supporting frame onto which the second hard disk drive is hung, and extension parts (312/320) extended outward from the respective corners of the supporting frame corresponding to each of the hooks. See Fig. 1 and the corresponding specification.

Referring to claim 3, Homer as modified, discloses a computer, wherein the mounting receptacle (400) is formed as a cavity in an underside of the computer body. See Fig. 1.

Referring to claim 4, Homer as modified, discloses a computer, further comprising a door (not shown) detachably attached to the computer body to open and close the mounting receptacle. See col. 4, lines 26-29.

Referring to claim 7, Homer as modified, discloses a computer, wherein the mounting receptacle (400) is "adapted" to the first hard disk drive (see col. 6, lines 2-4, which teaches

Art Unit: 2835

providing hubs (370) directly on the HDD for mounting said drive directly into the receptacle without the use of an adaptor). Homer also teaches the hard disk drive adapter (300) “adapted” to the second HDD, since “adapting” the same to an adapter (300) is clearly taught in col. 4, lines 16-24.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Homer in view of U.S. Patent No. 6,249,432 to Gamble et al. Homer discloses the invention as claimed, except for further comprising a plurality of rubber members adhering to an inner circumference of the mounting receptacle. Gamble et al. teach providing a plurality of rubber members (41) adhering to an inner circumference of a mounting receptacle (15). See Fig. 1 and the corresponding specification.

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the computer of Homer with the rubber members adhering to an inner circumference of the mounting receptacle, as taught by Gamble et al., since the device of Gamble et al. would provide additional shock absorption for the computer of Homer.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Homer in view of U.S. Patent No. 5,822,152 to Seaver et al. Homer discloses the invention as claimed, except for the first hard disk drive being a 2.5-inch hard disk drive, and the second hard disk drive is a 1.8-inch hard disk drive. Seaver et al. teach utilizing smaller form factors for hard disk drives, including 1.8” and 2.5” drives (see col. 1, lines 25-33) in portable computer systems.

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the computer of Homer with 1.8” and 2.5” drives, as taught by Seaver et al.,

since the device of Seaver et al. would reduce the overall size of the computer of Homer, while also maintaining or possibly increasing its data storage capacity.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Homer in view of U.S. Patent No. 5,886,869 to Fussell et al. ("Fussell" hereinafter). Referring to claim 11, Homer discloses the invention as claimed, including the extension parts (312/320) extending outward from the lengthwise sidewalls (314). Homer does not teach each hook extending upward from the lengthwise sidewalls. Fussell (Fig. 9) shows hooks (534/536) that extend upward for lengthwise walls (528).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the computer of Homer to include upward extending hooks, as taught by Fussell, since the device of Fussell would provide attachment to the top of the HDD of Homer, as opposed to attachment on the side of the HDD, thereby eliminating the need for more accurate and time consuming placement of hooks or pins into holes along the sides of the HDD.

Referring to claim 12, Homer in view of Fussell discloses a hard disk adapter, wherein the extension parts contact sidewalls of the mounting receptacle. See Fig. 1 of Homer.

Referring to claim 13, Homer in view of Fussell disclose the method as substantially claimed (see Fig. 1 of Homer), including inserting the second HDD into the supporting frame under the hooks (see Fig. 9 of Fussell).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

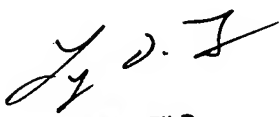
Art Unit: 2835

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 571-272-2042. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 4, 2005
aqe


LYNN FEILD
SUPERVISORY
TECHNOLOGY CENTER 2800